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ORIGINAL CONTRIBUTIONS.

Localized Bodily Movements: Their value as an aid in the treatment of Tuberculosis. By ROBT. N. TOOKER, M. D., Richmond, Ind.

In the August number of the *New York Medical Journal* is a review of a work just issued from the London press, by Stephen Henry Bigg, on the subject of "Localized Movements in the Treatment of Deformities and Chronic Diseases."

In that article the reviewer seems very favorably impressed with the theory of the practicability and usefulness of the author's system of practice. The idea of influencing the muscular system, and through it, the nervous and sanguineous, by means of external manipulations, is neither new nor confined to European practitioners. The treatment of paralysis by such forms of exercise as tend to stimulate nutrition in the cold and useless limbs, has long been a favorite adjunct of treatment with the more successful practitioners.

So also in certain forms of dyspepsia, and in nervous disorders, "fresh air and plenty of exercise" has been considered a *sine qua non* of cure. Indeed, the value and sphere of these "aids" has been found so great, that there are not a few in the profession who would more willingly dispense with medicine-case formulary than with them, in the treatment of chronic diseases.

The fact, however, that charlatans and quacks have, from time to time, usurped control of the idea of using bodily movements in the cure of disease, has led physicians, as a general thing, to look upon them with suspicion. Yet physicians, no less than the public, have stood amazed at the results often achieved by these same pretenders, who have cured, by "laying on of hands," and by various mysterious passes, cases that have baffled sound learning and large experience. So often is this witnessed, that, doubtless, there are many who, like the writer, have been forced to ask the question, "Can we not, as regularly educated and authorized practitioners of medicine, make use of whatever is proven to be good, without falling, in the estimation of our compeers, into the mire of quackery and empiricism?"

I propose, in this present paper, to give a condensed statement of what, from a somewhat extended practice during the past few years, and a very extended research among the writings of standard authors, I have been led to adopt as the correct theory of the causes and treatment of pulmonary tuberculosis.

The importance of the subject cannot be over-estimated. The mortality report of Cincinnati for the month of August last, shows *forty-four* deaths by consumption, which is more than *treble the number by any other disease excepting cholera*, and this, at a season of the year when febrile and bilious diseases are especially prevalent. The thousands who die every year by the hand of this fell destroyer in spite of the "best medical talent," and the accumulated experience which two thousand years have given us, are sufficient proof that there needs to be a better notion of the malady itself and of the appropriate remedy therefor than is generally entertained regarding them.

I shall not waste time and space here in rehearsing symptoms with which every one is familiar.

I proceed immediately to the discussion of the causes upon which the disease depends, and the conditions which are incident to it.

I advance the proposition, then, that whether the cachexia be hereditary or acquired, the disease itself is essentially and pre-eminently dependent on *vitiated nutrition*. In a disturbance

of this grand function lies the prime cause of the disease, and those who seek in the lungs alone for either causes or effects will go wide of the mark. Dr. Thompson, chief physician to the London Hospital for consumption, who is a strong advocate of the virtues of cod oil, explains its mode of action by assuming that it assists in the manufacture of the blood corpuscles which are notoriously deficient in the blood of consumptives. Prof. Tanner says, "Tuberculosis is a blood disease, of which tubercle or tuberculous matter is the specific product." And when he speaks of the treatment, he says, emphatically, "when tubercles have become developed, we must first of all *endeavor to improve the general nutrition.*" Dr. Chambers says, in his late work on "The Renewal of Life:" "It is by aid of the digestive organs alone that consumption can be curable."

Medicines addressed to other parts may by useful sometimes indirectly, but they more commonly impede the recovery; whereas aid judiciously given in this quarter is always beneficial and usually successful. *We must leave the respiratory organs alone and direct our thoughts to the organs of nutrition, which will receive with thankfulness and return with interest any care we bestow upon them.* Authorities might be multiplied, if these were not sufficient to prove the assertion that it is not the lungs which are at fault, but other organs performing different functions. It is rather digestion, assimilation and absorption, in a word, "nutrition." The prevalent practice, therefore, of doctoring the lungs with expectorants and nauseants, either in the form of inhalations or of draughts internally administered, cannot be too strongly deprecated.

The lungs are but suffering the effects of causes foreign and remote, and it is only by correcting the causes of any trouble that we can expect to cure.

No wonder the efforts to cure consumption have met with failure, when the tubercles already formed have received the sole attention, and the tendency to new formations has been disregarded, or, at most, treated as of secondary importance. The enormous amount of lung surface available for ærating purposes, render it possible for large portions of this surface to suffer destruction without serious consequences. I believe that

five-eighths of the lung tissue may be totally destroyed or rendered useless, without shortening life or materially impairing health, *provided the remaining three-eighths* remain intact. It is only when there is not enough well surface left to carry on the ærating process, that nature succumbs to the disease. So that even after large portions of the lungs have been involved in the destroying march of the disease, if we can arrest the further deposit of the tuberculous matter, we may safely assume that nature will adapt herself to the new condition of things, and so far as life and health are concerned, a cure will be effected. To show that the disease is not confined to the lungs, the fact is an established one, that when deposits of tuberculous matter are found there, (and sometimes when they are not,) they are also found in the liver, the spleen, the kidneys; in the various glands, the sheath and coverings of muscles, and even in the bones, as in Pott's disease of the spine.

The disease is then general and constitutional. Nutrition is at fault—and it is to nutrition that we should direct our attention and all our remedial efforts. Before speaking of the means at our disposal for correcting this evil tendency on the part of the constitution, which we have seen to be the cause of all this trouble, I wish to speak of the action of oxygen on the organism, since very much of the value which will be given to the treatment soon to be advocated, will depend directly on the uses which we assign to this element. The opinion is a very prevalent one that the consumptive patient is dying for want of oxygen; that the blood is but imperfectly oxydized, and that any agent that will supply this deficiency, will in so far be pregnant with good. With this idea, almost every *oxide* that chemistry could suggest has been tried, and abandoned for some new preparation which promised to furnish in a better form this indispensable element. With the same end in view, many excellent practitioners have advocated the use of inhaling tubes, spirometers and chest-expanders, which, by enlarging the capacity of the lungs, would increase directly the amount of oxygen inspired. Granting for a moment that the *tissues* do stand in need of oxygen—for it surely is not simply to pass into the stomach or the lungs and out again—it is difficult to see

how this oxygen can ever reach the tissues in the absence of the blood corpuscles which are the oxygen carriers, or when these blood corpuscles are as largely increased in number as they are in the blood of consumptives. But so far from there being this need for more oxygen, I shall endeavor to show that the reverse is the case; that the system needs less rather than more, and that the use of inhaling tubes and spirometers is not only reprehensible, from the fact that this forcible insufflation is liable to break down the texture of the lungs by over-distension of the air cells, as has happened in numerous instances, but for the reason that an increased volume of air is not desirable but positively detrimental.

If the consumptive does need more air, it is because he requires more of the oxygen which the air contains, for, although the atmosphere contains other elements, neither chemistry nor physiology point out their uses. They are not as yet understood. But chemistry and physiology teach us that the process of oxydation is, in part at least, a *combustion process*, or, if not literally and strictly so, it may, for all practical purposes, be so considered. For although it is clearly proven that the inspired oxygen does not combine directly with the carbon of the blood while in the lungs, and that the production of blood does not take place here, as was formerly supposed—thus making the lungs the fireplace of the system—yet it is admitted on all hands that the oxygen does serve the double purpose of a vitalizer and a devitalizer or decomposer, and it is more than probable that this latter is the greater and more important part of its function. In the process of waste which the several tissues are constantly undergoing, and by which their particles are constantly becoming useless and burdensome, it is the function of the oxygen to so combine with this debris as to form new and soluble compounds, which the various excretory organs can eliminate from the system, to make room for the newly vitalized matter which are to supply the deficiency. In health this oxydizing process goes on but slowly, because the tissues have, by virtue of the vital principle which pervades them, something of a resistant power against the oxygen, which otherwise would quickly destroy them, and

they thus preserve their integrity for a longer period than when the system is depressed by disease, and the resistant power is in consequence lowered. This is illustrated in the phenomena of external injuries. When the tegumentary tissues are so injured by violence or disease as to lose this power of resistance to the action of oxygen, then ulceration or slough takes place, and although the action of the oxygen contained in the atmospheric air is invigorating and beneficial to these tissues in health, yet when their vitality is thus lowered, exposure to it kills them still further, and may soon alone prove fatal, as we see in cases of extensive burns. This illustrates the utility of the practice in smallpox of painting the pocks over with collodion or caoutchouc, to preserve them from the air, and thus prevent the deep ulcerations which would otherwise ensue.

It must be borne in mind that the condition of inflamed tissues is materially changed from that of health, and their natural susceptibilities become from this cause so morbidly increased that even their natural stimuli cannot be tolerated, but if allowed to act, become additional and powerful sources of mischief. The natural stimuli of the eye, the ear, the stomach and the bladder, are grateful during the normal state of these organs; but when inflammation occurs, the smallest pencil of light becomes intensely painful to the eye; noises to the ear; food and drinks to the stomach, and urine to the bladder. The cells which compose these inflamed tissues, unable to retain their integrity, by having their sources of nourishment cut off, by reason of the congestion, and also deprived of their nerve stimulus, degenerate into pus. The body deprived of the vital principle speedily decays—that is, *becomes oxydized.* Living, healthy tissues, either by virtue of this vital principle, or some equally powerful cause, do not yield themselves thus readily to the action of oxygen, but once lower their resistant power, and destruction is the result. The universal wholesomeness of fresh air is probably a mistaken notion. It is bad for inflamed skins; it is bad for abscesses; it is bad for wounds: *is it good for inflamed lungs?*

With softening tubercles in the lung substance, and the neighboring parts inflamed and irritable, the more oxygen is

inspired, the more certain, rapid and widespread the destruction must be. But not only here, but, by the very nature of the disease, the body is being too rapidly consumed; it is *consumption*, not figuratively but literally. The waste of the tissues exceeds the repair; disintegration of structure predominates over the process of reconstruction. There is inanition or starvation, though a full supply of food is taken into the stomach, because this food is either misapplied, or assimilation and absorption being faulty, the food never becomes blood, and hence never reaches the tissues.

In Dr. Gardner's treatise on gout, are some very interesting and important experiments concerning the action of oxygen on the blood, and they are so *apropos*, I cannot avoid mentioning them in this connection. In these experiments, performed on rabbits, it was found that after pure oxygen had been respired for half an hour, the quantity of albumen and blood corpuscles was materially diminished, while the quantity of fibrin was largely increased. But the two former elements are the ones which make the blood, the nutrient fluid of the body. The corpuscles are indeed the most important of all its ingredients, and next in importance comes the albumen. And these are both diminished as the quantity of inspired oxygen is increased. As regards the fibrin, Dr. Smith, the Am. Ed. of Carpenter's Physiology, says, in commenting on the views held by Prof. C. relative to it:

"This product, (fibrin,) it is maintained by many, in opposition to the views here stated, is to be traced to the process of disintegration and waste that is going on constantly in the system, and that opinion gains support from the fact that in diseases characterized by rapidity of capillary circulation and emaciation, such as phthisis, anemia and acute inflammation, *this material is strikingly increased.*" The diminution of the blood corpuscles in these same diseased conditions, is a well authorized fact. If, therefore, an augmented inspiration of oxygen tends, as these experiments go to show, to increase the product of waste—which in consumption are already too great —while at the same time it diminishes those elements which by

their presence constitute the life and usefulness of the blood, there is surely something wrong in that practice which consists in *an increased amount of oxygen*, be it given in the form of the iodides, the chlorides, inhaling tubes, or the "compressed air bath." Such a practice can only be supported on Hahnemannic grounds—"Similia similibus curantur."

I believe, therefore, that too much importance has been ascribed to the vitalizing power of inspired oxygen, and not enough to the elimination of carbonic acid and the volatile organic matter which result from every functional manifestation. It is true that an animal will not live for any considerable time in an atmosphere of pure hydrogen—though the elimination of of carbonic acid is in no manner impeded. But, on the other hand, an animal made to breathe an atmosphere of carbonic acid alone will die almost immediately, as the experiment of Spallanzani and W. Edwards prove. The experiments of Claude Bernard are also in point. He mingled fifty per cent. of oxygen with fifty per cent. of carbonic acid, and found that warm-blooded animals were suffocated in it in spite of there being more than double the quantity of oxygen present in the ordinary atmosphere. The inference of Bernard is doubtless the true one: that the inability of the atmosphere to sustain life, is due to the obstacle it offers to the exhalation of carbonic acid. The blood cannot free itself of the carbonic acid it contains, and cannot therefore become *arterialized*, notwithstanding the presence of so much oxygen, because the conditions necessary to exchange are absent. Other experiments of Bernard's are still more to the point. He tied a dog's head in a bag, which would in a certain time produce suffocation, and he found that this period was by no means retarded when he *injected oxygen into the arteries.* On the other hand, he injected large quantities of carbonic acid into the veins and arteries, and under the skin of rabbits, and so long as the lungs were free to act, no noxious effect ensued. The more of this element he injected into the system, the greater the quantity exhaled by the lungs. And again, he found that a bird about to expire in vitiated air, could be readily brought to life again by the intro-

duction of potash, which would absorb the carbonic acid—showing that it was from the presence of this carbonic acid that respiration was impeded.

There are a few final considerations which go to sustain the views which I have presented, and I desire to briefly state them before passing to the treatment.

(1st.) In no other satisfactory way can we explain the beneficial results which so commonly follow the use of alcohol and oils, when administered in this disease. The former, at least, does not enter into the system as one of its component elements, nor does it remain in the organism in any known form. It does not supply any deficiency then directly, and yet, ample evidence could be adduced to prove its value as a remedy. The only way in which we can account for the fact is by supposing that it acts as a conservator of tissue. In keeping up the heat of the body, it supplies the place of food and tissue.

(2d.) In hot climates where the air is highly rarified, a less volume of oxygen is taken into the lungs at each inspiration, than in colder climates, to enter into combination with the carbon of the system. On this account we observe a greater prevalency of the liver and bilious affections in torrid than in temperate latitudes. Unless care be taken to avoid liquors and articles of food which produce a large amount of carbon, a greater quantity of other elements will be assimilated than the inspired oxygen can decompose. Thus an excess of carbon and hydrogen is retained, relaxing and enfeebling the nervous and muscular tissues, so that from slight exciting causes, diseases of a bilious and congestive nature are originated. But we find here a marked exemption from tuberculous disease.

(3d.) The fact is becoming better and better established each year that consumptives do better in these hot climates than in colder ones, and the practice of sending patients, affected with tubercles, to northern latitudes, is being rapidly abandoned, as experience proves that such a practice is detrimental rather than beneficial.

(4th.) Corpulent people are proverbial, as a class, for narrow, contracted chests, while, as a class, they are remarkably exempt from consumption. Unless there be some additional fault in

the constitution, narrow-chested persons are not proven to be more disposed to consumption than are those with larger lung capacity.

In accordance with the foregoing views, our curative efforts should be directed to the accomplishment of these three objects: First, to limit the quantity of oxygen inspired; second, to supply, in a concentrated form, carbonaceous foods, which this oxygen will act upon instead of upon the carbon of the system; and third, stimulate the renewal of the tissues, and increase their resistant power toward the oxygen which is destroying them.

As regards the accomplishment of the first object, Thomas King Chambers, who, from his position and experience, is competent authority, says: "I find that few things contribute to the ease and recovery of my patients so much as limiting the supply of oxygen in the atmosphere *by saturating it with watery vapor.* I refer here not only to pneumonia, but to all affections of the breathing apparatus.* This can be accomplished by the ordinary process of evaporation, or still better, by the use of the *atomizer*, which may be allowed to throw a small jet of steam into the room the greater part of the time. The second object can be best accomplished by the use of cod liver oil and whisky, or some substitute for them.

I wish to speak more particularly of the third part of the treatment, whose object can be secured by the judicious use of exercise or bodily movement, since they tend directly to stimulate and strengthen both the nervous and muscular tissues. They also help on digestion, so that more food is assimilated and brought into the circulation for the oxygen to act upon.

We must correct the balance between waste and renewal, and nothing is so capable of doing this as muscular contractions, cautiously employed. Exercise has long been recommended and employed in this disease, and has often proved highly salutary, though the exercise has been of the simplest and most unsystematic kind. But in general, simply to "take exercise," may neither improve health nor strength, it may injure both. Weakness no less than strength may follow the

* "Renewal of Life," page 91.

employment of any function. The healthiest organism may be, and often is, weakened and diseased by exercise too violent or too prolonged, and surely, much more care should be taken to regulate the kind and amount, when exercise is prescribed for medicinal ends, and to be taken by a body already enfeebled by disease.

The good and eminent Dr. Rush, the father of American medicine, appreciating the truth of this, wrote, "That physician does not err more who advises a patient to take physic without specifying its kind and quantity, than the physician who advises a patient in consumption to use exercise, without specifying its species and degrees. From the neglect of this direction we often find consumptive patients injured instead of being relieved by exercise, which, if used with judgment, might have been attended with the happiest results."

Probably in no other disease is the matter of the *appropriate* exercise of more importance.

The utmost care should be taken to prevent congesting the lungs by such exercises as cause their effects to center in the region of the chest. All violent active movements of the arms, such as swinging dumb bells or heavy clubs, or indeed any violent effort which will hurry the breathing, should be scrupulously avoided. The lighter calisthenic exercises, like those employed in Dio Lewis' Light Gymnastics, are much preferable. But even these may be productive of harm, especially if the disease be considerably advanced, and the powers consequently weak. In these cases, only *passive* movements, or those partially active, are admissible. These will require an assistant, but may be given by any one in attendance upon the invalid, under the doctor's direction. The movements themselves consist in rubrings, or ordinary frictions; rollings of the muscles, effected by placing a limb between the hands and rubbing rapidly *across* the axis of the limb; spatting the muscles with the palm of the hand, or still better, *hacking* rapidly over the muscles with the edge of the hand. While the patient lies passive the operator may flex the limbs in various ways, causing alternate contractions and expansions of the muscular fibres, the patient meantime, if able, offering slight resistance to these manipulations.

The greatest care must be exercised at first, and indeed all the time, to adjust these efforts to the patient's strength. *No effort should be carried to fatigue.* The nervous forces in particular must be shielded and strengthened, not exhausted. Hence the value of the passive movements. These irritate the muscles and regulate the circulation without irritating the nerves or wasting their energies.

I have seen the quick, fluttering pulse of hectic, calm down and become regular, and many distressing symptoms disappear temporarily, under an hour's judicious handling in this way, and permanent benefit follow, by persistence in the treatment. After continuing these manipulations for a few minutes, the patient should rest perfectly quiet for a time, after which they may be again resumed.

I do not deem it necessary to be more explicit. An endless number of movements may be devised by the physician, varied as the cases vary.

The main idea being, always to get the greater number of muscular contractions possible, commensurate with the patient's strength, always stopping short of fatigue.

Clinical Lectures on Diseases of the Eye. By E. L. Holmes, M. D., Lecturer on Diseases of the Eye and Ear in Rush Medical College.

PARALYSIS OF THE MUSCLES OF THE EYE.

Gentlemen,—Paralysis of the recti and oblique muscles of the eye, is a quite rare disease. Reference to tabulated lists of ophthalmic diseases will show you, I think, that only about one in four hundred patients, with abnormal conditions of the eye, is afflicted with paralysis of these nerves.

The disease, however, is of considerable importance, as not unfrequently confounded by the careless or inexperienced with strabismus; it is interesting also, as aiding us in the study of the action of the motor muscles of the eye.

Paralysis of these muscles is characterized by an inability to rotate the globe in the direction in which the muscle usually

acts. In other words, the antagonistic muscle, by its tonic contraction, holds the globe (visual axis) turned in the direction opposite to the affected muscle. In paralysis of the external rectus, for instance, the pupil is turned towards the inner angle. In paralysis of the internal rectus, the globe is rotated outward. In paralysis of the inferior rectus the pupil is turned upwards, and *vice versa* in paralysis of the superior rectus. Paralysis may be total or partial. In the latter case it is termed paresis.

Paralysis of these muscles must be distinguished from a peculiar insufficiency of the muscles, especially of the internal recti, in which all the motions of the globes are normal in extent, and in which the visual axes are readily fixed upon any object. The insufficiency or weakness is principally experienced when the patient attempts to fix the eyes long at a time upon quite near objects. In this case the internal recti become fatigued, and then lose their power of holding the visual axis sufficiently convergent. Consequently one of them, the weaker, relaxes, and the visual axis turns from the object, causing a confusion of vision with more or less pain. The symptoms usually subside on looking at distant objects.

In case of paralysis of a muscle, the luscitas or fixed strabismus, as it has been sometimes called, is constant. The two principal symptoms of paralysis in general, are the relative position of the eyes, as seen by simple inspection, and the appearance of double images in the ordinary efforts of the patient to fix the eyes upon any object.

There are also two symptoms of secondary importance, which it is well to bear in mind—the manner in which the patient carries his head, and the manner in which he attempts to grasp an object, while the well eye is covered. It is scarcely necessary to dwell upon the manner of determining the position of the pupils (visual axis) in paralysis. Directing the patient to hold his head perfectly still, you place any small object in front of the patient, and then move it in any direction, to either side above or below, watching the movement of the affected eye. Any failure to follow the object with one of the eyes, can thus usually be readily detected. A critical investigation of the double images often requires much care on the part of the

physician, and considerable intelligence on the part of the patient.

It will be found a convenient method in such examinations, to place the patient in front of a large tablet, held perpendicularly before the face in a darkened room. On placing a small lighted candle before the face of the patient, in a suitable position, two images of the light will be projected upon the tablet. The relative position of these images can be easily marked upon the tablet. From such examinations you will perceive that the image of the affected eye is projected in the direction of the paralyzed muscle.

If the superior rectus of one eye is paralyzed, the eye will be turned downward, but its image will be thrown above that of the well eye. *Vice versa*, if the inferior rectus of one eye is affected.

If the external rectus of one eye is paralyzed, the globe will be rotated inward, while its image will be projected outward. If either eye be now covered with the hand, it will be observed that the image upon the same side as the covered eye will disappear. On the other hand, in cases of paralysis of the internal rectus of one eye, in which the globe is rotated outward, the image will be projected inward. Remember, therefore, when either eye in paralysis is turned inward, there will be double images—in such a way, however, that the right image belongs to the right eye, and the left one to the left eye. But when either eye is turned outward, the image on the left side belongs to the right eye, and the image on the right side to the left eye. Hence, such images are called "crossed."

A careful review of what I said in a former lecture, regarding the action of the muscles, and of "corresponding portions of the two retinæ," will enable you to understand these points. The subject, however, requires considerable study to make it familiar.

The presence of double images is a symptom exceedingly annoying. Patients almost involuntarily endeavor to overcome this symptom, either by closing one eye, or by a peculiar position of the head. The muscles of the neck learn to act consensually, as it were, with the movements of the eye. The head is

usually turned in the direction of the affected muscle. If, for instance, the right external rectus is paralyzed, the globe, of course, is turned to the left. The patient, in order to avoid the double image, turns the head to the right, as far as is required for the left eye, in looking at any particular object, to be turned toward the left. As soon as the left eye is turned as far to the left as the right eye is turned in consequence of the paralysis, the images coalesce.

On covering the well eye, objects seen by the affected eye, appear to be situated too far to one side. For instance, in paralysis of the external rectus of the left eye, the macula lutea, or point of most distinct vision, is turned to the left; hence, the image of an object is formed on the point of the retina to the right of the macula lutea, which point corresponds to objects situated farther to the left. In this case, therefore, the patient, in attempting to grasp the object, carries, almost invariably, his hand too far to the left of the object, and of course misses it.

This inability to measure distances accurately, together with the presence of double images, especially in attempting to walk, produces more or less giddiness and unsteadiness.

The distance between the two images, depends in a measure upon the degree of paralysis.

The attack is often very sudden, and sometimes comes on very slowly. It may inflame but one muscle, or all of them simultaneously.

The exact diagnosis, is sometimes difficult. While simple inspection is often sufficient, careful examination of the position of the double images, on looking in different directions, is sometimes absolutely necessary for determining an accurate diagnosis.

Our time will not admit of entering upon a full description of the mode of conducting such investigations for each muscle. I must refer you to what was recently said in reference to the manner in which the inferior and superior recti muscles influence the meridian of the retina, (perpendicular diameter of the cornea.) You will thus perceive, when the visual axis is directed towards the nasal side of the orbit from paralysis of the ex-

ternal rectus, (right eye, for instance,) that, in attempting to look outward and upward, the superior rectus must tend to rotate the eye in such a way that the meridian is inclined inward instead of being inclined outward, as it should be to remain parallel with the meridian of the other eye. As, you remember, the internal rectus of the other eye inclines the meridian inward, in looking upward and outward, the affected eye should be turned outward and upward, and its meridian inclined outward, through the action of the inferior oblique.

As the paralysis of the external rectus causes the eye to turn toward the inner angle, the inferior oblique, with the eye in this position, loses, for reason explained in a former lecture, its influence on the inclination of the meridian. The meridian of affected eye remains perpendicular. Hence, in paralysis of the external rectus, on looking upward and outward at objects, their images appear not only double, but in such a way that the upper portions of the misplaced images are inclined inward; on the other hand, for similar reasons, on looking downward and outward, their upper portions are inclined outward.

In paralysis of the internal rectus, the action of the oblique and superior and inferior recti, also have an influence in the inclination of one of the double images. The inclination is an important point in the diagnosis, in paralysis of the superior oblique.

For details in the study of this subject, I must refer you, among several important monographs, to an article by Graefe, in the first volume of the archive for ophthalmology, also to articles by Wells, in the London Ophthalmic Hospital Reports.

When all the branches of the oculomotor nerve are implicated, there is paralysis of the superior, inferior and internal recti, the inferior oblique, and of the levator of the upper lid. The globe often protrudes more or less, the pupil is dilated and the power of accommodation destroyed. In different cases, however, these last symptoms may vary in degree, or even be absent when all the external muscles are affected.

The principal causes of paralysis of the muscle of the eye, are syphilis, rheumatism, diphtheria, tumors implicating the

nerves, inflammation of the base of the brain, penetrating wounds of the orbit, and exposure to sudden changes of temperature.

If the paralysis is not speedily removed, there is danger of atrophy of the affected muscle, and a permanent shortening of the antagonist, which necessarily, if fully established, produce incurable restriction in the motions of the eye.

The prognosis is grave, where the affection is caused by tumors, injuries, products of inflammation at the base of the brain, and in all neglected cases. In diphtheria, it is usually good, also in syphilis if treated early.

The treatment depends in a measure upon the cause. In syphilis and rheumatism, the treatment should be directed principally to these diseases. In diphtheria, the use of tonics is especially indicated.

Strychnia, iodide of potash and electricity, have been used with benefit. In contraction of the antagonistic muscle, tenotomy is sometimes performed with good results.

Nearly all the late text books on physiology and anatomy, are at fault in their discussions on this subject. My object in this lecture has been chiefly to serve as a guide in giving you the proper direction in your further investigation of these points in the physiology and pathology of the eye.

A Case of Cerebro-Spinal Anæmia. By R. C. HAMILL, M.D., Consulting Physician to the County Hospital, Chicago.

I was called to see Miss L., a girl in her thirteenth year, Oct. 14th, 1865, and found her dressed, lying on the bed, apparently in good health. Her mother informed me that on the day previous, on returning from school, she complained of unusual weariness and weakness of the back, but no especial attention was given to it. On the following morning, when she attempted to get out of bed, she found herself unable to stand. In this condition I found her during the afternoon of that day.

Her case presented the following phenomena: Constant but

not severe pain in the head, located, according to her description, in the line of the great longitudinal fissure separating the hemispheres of the cerebrum—the pupils of both eyes were dilated to more than one-fourth of an inch in diameter. The posterior and central portions of the tongue were covered with a closely adherent grayish fur. Appetite bad for a week, and her bowels inactive rather than constipated. Skin and kidneys approximately normal in action. A subsequent analysis detected no albumen in the urine—a slight excess of acid was apparent. The action of the heart was marked by slight irregularity, but there was no suspicion of any organic disease—pulse 110 at the wrist, and soft. Inspiration 30 per minute, and irregular, evidently the result of a habit, contracted for some unknown reason—for under my direction she could breathe naturally, at a rate of 18 inspirations per minute, and with entire ease to herself. There was some tenderness along the whole course of the spine, with marked soreness in the lower cervical and upper two dorsal vertebræ, and in the lumbar region, extending as high as the last dorsal vertebræ, inclusive. There was no obliquity of the spinal column. Sensation was perfect everywhere, and she had complete use of her limbs, turning and rolling in bed without pain and with apparently as perfect ease and freedom as if in the enjoyment of full strength and vigor. It was only when she assumed the erect position that any want of control or modification of motion could be observed on the lower limbs. She was unable to take a single step unless the entire weight of the body was supported by the hands of attendants in the axilla of either side, and then the feet were rather jerked forward a few inches at a time, and in a manner such as to convey the impression that she was bending the entire energy of her will to the effort. The pelvis was thrown forward, the shoulders backward, and if not supported would invariably fall backwards. About two years prior to this time she had a severe attack of rheumatic fever, but I was unable to learn anything definite in relation to its history. She had on several occasions suffered from ascarides, but not within the last six months. I was inclined to attribute the loss of power to functional derangement, due to verminous irritation,

and in accordance with that opinion, ordered: ℞ Santonin, grs. xii., div. in chart. 4—one every four hours, to be followed by an aloetic pill. The bowels were freely moved, but no worms appeared. Infusion of quassia, ℥iv. per anum, on the next day was followed with the same negative result, and the verminous origin of the trouble was extinguished. For the purpose of stimulating the secretions, more especially that of the liver, the following pill was ordered once in twelve hours: ℞ Pil. hydrarg. grs. xij., ext. hyosciami, grs. vi., ft. pill 6. Bowels moved once a day under the influence of the pills, and on the morning of the 19th, her tongue was quite clean, and she had some appetite for breakfast, but without other change in the case. Her pulse was soft and full, 110 to the minute; no febrile excitemenent; pupils dilated; pain in the head same. As a general nerve tonic and sedative, I ordered tho following mixture: ℞ Citrate of iron and strychnine, ℥i., chloric ether, ℥ii., infus. gentian, ℥xii., one tablespoonful three times a day, after meals, which was continued until the 1st of Nov., accompanied by thorough frictions night and morning with a soft towel, but with no perceptible benefit, as far as locomotion was involved; on the contrary she was more helpless than at the commencement of the treatment. The iodide of potash was now substituted for the strychnine mixt., grs. vi., three times a day, frictions continued. Nov. 10th, complains of a sharp pain between the left mamma and along the intercostal spaces, for which tinct. actæa racemosa, gtt. xxx. three times a day, was ordered, before meals; the iodide continued two hours after meals. She remained under this treatment to the 29th; pain partially relieved, pulse varying from 100 to 110. The improvement in the main features of the case was scarcely perceptible, and I felt it my duty to call in professional aid. Dr. E. Andrews saw her with me, Nov. 30th, and after a careful examination of the case, gave as his opinion that the inability to walk was functional derangement, due to subacute inflammation of the membranes of the spinal chord at the origin of the lumbar nerves; that her diathesis was rheumatic; and that he should expect to find benefit from the use of colchicum in full doses until its cathartic effect was decided, then follow with full doses of actæa racemosa, and

reduced quantity of colchicum. Accordingly, gtt. xx of the rad. colchici, were given once in four hours. In about thirty-six hours free purging set in and the colchicum was discontinued. A Dover's powder was given at bedtime, and on the next day the following mixture was ordered: ℞ Tr. actæa racemosa, ʒjss., vin. rad. colchici, ℥ij., misce—gtt. xl., three times a day. The iodide of potash continued as before; croton oil to the spine, between the scapulæ; friction continued.

Dec. 15th. No relief. Her appetite, which was pretty good before, now began to fail. A short and constant cough, dependent on irritation of the laryngeal branch of the pneumogastric nerve, was a source of great annoyance. Her pulse was rarely below 110. The pain in her side much the same. She was surely losing strength without compensation in any other direction. This treatment discontinued, and I determined to address my efforts to the general health, and thus reach the nervous system through improved nutrition. With this purpose in view, the following mixture in tablespoonful doses, three times a day, was ordered, at meal times: ℞ Hypophosphite sodæ, ϑxii., chloric ether, ʒii., infus. gentian, ℥viij., misce. The croton oil, for some reason, failed to produce effective counter-irritation, and a cantharidal plaster, 2½ by 8 inches, was applied between the shoulders, reaching as low as the fifth dorsal vertebræ; frictions over lumbar region and limbs, with salted crash as before.

Dec. 18th. The blister drew finely and was permitted to heal. The pain in the side was quite relieved by the blister. She is cheerful, and expressed herself as feeling much better. The short, hacking cough continues, but not so persistently; sometimes stopping for an hour or more; otherwise, without material change.

Jan. 1st, 1866. A decided improvement during the last ten days was manifested in every way; pulse 100; cough more under control; appetite good. Is able, by the aid of a chair, to go from her bed to the opposite side of the room. A pair of crutches were procured for her, and in less than two weeks she was able to reach all parts of the house, through their aid.

Feb. 15th. She was able to stand without assistance, and take

a few short steps. Cough continued; pulse 94; pupils dilated; says she feels perfectly well.

The subsequent treatment, which reached to the middle of May, consisted of the hypophosphite of soda, as above, and the syrup of iodide of iron, gtt. xx., three times a day, alternated once in two week. General frictions once a day at least, with a salted towel, were continued until the case was dismissed. Her recovery was slow but uninterrupted from the 1st of January until the middle of May, when she was permitted to ride on horseback, and was able, so far as I could judge, to endure as much exercise, without fatigue, as is usual for young ladies of her age.

Poisoning with Morphine. Reported by J. L. PRENTISS, M.D., of Lawrence, Kansas.

Miss L. S——, aged 25 years, swallowed five grains of morphine at 5 o'clock P. M. on the 28th of August. At 11 P. M. I was called, and, on entering the room, found her in a state of complete insensibility. Pulse beat 80 per minute, moderately full; the pupils were contracted; breathing stertorous, and at times ceased entirely for the space of a minute; the skin was cold and clammy, and narcotism was so complete, that it seemed impossible to arouse her sufficiently to administer an antidote, as the masseter muscles were rigid, and the teeth so firmly closed, that it was impossible to open the mouth.

By the application of cold to the head, and cold douche to the face and chest, besides anything but a moderate amount of shaking, we succeeded, after about half an hour, in getting her sufficiently aroused to take medicine. I immediately gave her one drachm of the tincture of belladonna, and repeated the dose every half hour for two hours, when the pupils became dilated, the breathing more natural, and the patient seemed comparatively free from the influence of the narcotic.

In this case I used nothing but the belladonna and strong coffee, and am well satisfied that the former should be classed among the first as an antidote in cases of poisoning by opium.

Observations on the "Clamp," in the treatment of Internal Hemorrhoids and Prolapsus of the Rectum— With two Cases. By A. J. Baxter, M. D., Chicago, Ill.

The frequency of hemorrhoidal affections, the great distress which they occasion, and their liability to undermine the constitution, when of long duration, make them an important subject for surgical attention.

Heretofore the methods of treating internal hemorrhoids have been principally three, viz: Excision, nitric acid and the ligature—but from the excessive hemorrhage attending the first of these methods, the great difficulty in arresting it, and the fact that it has been attended with death in the hands of such men as Sir Astley Cooper, Dupuytren, and others of less note, have rendered it, I may say, obsolete. As the pathology of hemorrhoids became better understood, so the application of nitric acid became restricted, until now its usefulness is recognized in but one form of piles—the vascular excrescence, it being, as the name implies, a florid, granular, excessively vascular and slightly raised condition of the mucous membrane; ranging in size from a five cent piece to a quarter—most frequently of an intermediate size. This is the reason why nitric acid has met with so little favor at the hands of the profession. It has been used indiscriminately in all the varieties of piles, and being applicable to but one, resulted in a failure in the majority of cases. The advantages claimed in the ligature are simplicity of execution, safety from hemorrhage, certainty of result, and in the main, freedom from subsequent danger. If these advantages were not attended by any disagreeable consequences, they would be all that could reasonably be desired—but there are disadvantages and inconveniences attending its use of no miner importance, such as the length of time required for the separation of the ligature—ranging from five days to two weeks, according to the amount of bowel included; the pain and constitutional irritation often accompanied by difficulty in voiding urine, sometimes amounting to retention; and that its use is sometimes attended with death from pyæmia there is no doubt.

With this much in regard to the various methods of dealing with internal hemorrhoids, their advantages and disadvantages,

I will introduce the "Clamp" as improved by Henry Smith, Assistant Surgeon to King's College Hospital, London; and as I am not claiming anything original in this matter, but simply desire to call the attention of the profession to the great improvement afforded by this instrument in the treatment of internal hemorrhoids, I will give Mr. Smith's description of it, mode of application, etc.: "The instrument is much the same as regards shape as that originally recommended by Mr. Curling; but the edges of the blades, instead of being serrated, fit into one another by means of a groove and raised surface; and instead of being fixed by a catch, the handles are perforated by a light screw, so that the pressure can both be put on and taken off the tumor to be removed in such a gradual manner that any bleeding point may be readily appreciated and treated. The operation consists in seizing the tumor with the blades of the clamp or forceps, and removing it with a knife or sharp scissors; the raw surface is then wiped dry and thoroughly cauterized, either by nitric acid or the hot iron, according to circumstances; the parts are well oiled, and the affair is finished. The disease is removed at once, and the patient is not subjected to the irritation and danger of a ligature strangulating several portions of mucous membrane for a week or more. A very extensive experience of this method of treatment has convinced me so entirely in its superiority over every other plan, that I have thought it right to detail a few of the most severe cases which I have met with during the last year.

"I am the more anxious about this, as there is a feeling of prejudice against the treatment amongst those who have not witnessed it. On the other hand, I believe all those who have seen the operation as I adopt it in King's College Hospital, and in my private practice, have been much astonished and pleased with the results. My own impression is, that the ligature may be almost entirely done away with for hemorrhoids and prolapsus; although my own practice is somewhat contrary to my convictions, as I have latterly employed the ligature in a considerable proportion of cases which have occurred to me. The reason of this is, that I have been testing with great care the comparative value of the two modes of treatment, and have

been selecting cases for each; and as before stated, the conclusion is forced upon me that the advantages of the plan by the clamp are too marked to be lost sight of."

My experience with the clamp, though nothing in comparison with Mr. Smith's, fully sustains all he claims for it, as I think the following cases will bear witness:

Case I. Mrs. R——, aged twenty-one, a highly cultivated and sensitive lady—has been married but six weeks, says she has suffered more or less from piles during the last three years, but not so intensely until within the last six months, when she first noticed that something "came down." Ever since which she has been losing a good deal of blood, and the pain attending defecation has been greatly increased. Thinks they were brought on by constipation, from which she suffers habitually. May 20th I removed one large vascular tumor by means of the clamp and hot iron. One external pile was snipped off with the scissors. On the third day her bowels were moved with a castor oil emulsion, and on the fifth day she and her husband called at my office. Complained only of some soreness when the external pile was removed.

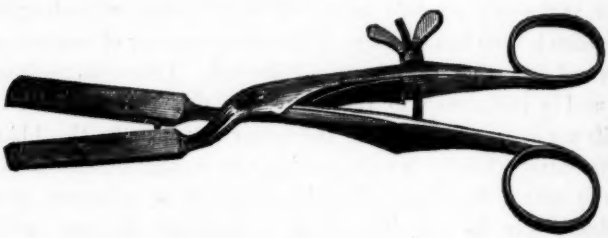
Case II. Mrs. G——, aged thirty-five, a stout, hearty Irish washerwoman—mother of three children, sent for me, Tuesday morning, September 4th. I found her in bed, with a high fever, and complaining of great pain and burning in her "behind." On examination, found two large tumors, one of which was in a high state of inflammation, partially protruding, and tightly grasped by the sphincter. The tumors were removed in the afternoon, with the aid of the clamp and hot iron. To allay the constitutional trouble and quiet pain, directed that a tablespoonful of the following solution should be given every hour until three doses were taken, then to be given once in two hours: ℞ Liq. ammoniæ, acet. ℥vi., morph. acetat. gr. iss. Cautioned her particularly to keep quiet in bed.

5th. Found her in bed, fever nearly gone. Expressed herself as feeling perfectly well. Directed her to remain in bed until the following day, when, if everything continued favorable, she might get up. On calling the next day, to my astonishment, I

found her at the washtub. Gave her some castor oil and departed. This case fully illustrates, I think, the advantage of the clamp over the ligature. The most zealous advocate of the latter would honestly have thought of applying it here, but would have put in force measures for subduing the local and constitutional trouble, such as leeches, hot water dressings or poultices, thereby consuming more time and the enduring of more pain in palliative treatment than was required for the radical cure.

Mr. Smith, in describing the operation, says the tumor is seized with the clamp and removed with a knife or scissors. Now, as the only possible danger (if there is any) attending this operation is from hemorrhage, it becomes a matter of importance how and with what the tumor is removed. The scissors should be used in preference to the knife, for this reason: with the knife you are apt to shave off the tumor too close to the blades of the clamp, thereby leaving nothing to cauterize, and as the blades cannot be taken off and readjusted at pleasure, great difficulty may be experienced in cauterizing the cut surface sufficiently to prevent hemorrhage, as happened in my first operation, causing no little trouble and anxiety. And again, it is a matter of no small importance whether nitric acid or the hot iron is used as the cauterizing agent. Mr. Smith says, "When I first began to use this treatmeat, I employed nitric acid as the cauterizing agent in all cases; but in two instances it failed to stop the bleeding, and I was compelled to secure the part with a ligature. Consequently, I now only use the nitric acid in the slight cases; but if the diseased mass be extensive, or the parts extraordinarily vascular, I employ the actual cautery, which suffices to seal up the vessels. I am inclined to think that, of the two, the cautery is followed by more suffering than when nitric acid is used. Admitting that a little more suffering attends the use of the cautery, no judicious surgeon would, I think, jeopardize the safety of his patient to avoid a little additional suffering; and as an anodyne sufficient to allay pain should follow either application, the objection amounts to nothing, whereas the certainty of the cautery in preventing hemorrhage."

After giving the details of seventy cases in which the clamp had been used, Mr. Smith draws the following conclusions: 1st, That it is safer than the ligature, for in no one case has death occurred, nor in any one instance has anything taken place which caused the least anxiety; 2d, That it is less painful, and followed by less constitutional irritation; 3d, That it is much quicker—the patient not being confined to bed more than one-third the time necessary for the separation of the ligature; and, 4th, The result is as lasting as that by the ligature, because in each instance the disease is bodily removed—in one case speedily; in the other slowly.



The clamp can be obtained of Messrs. Bliss & Sharp, 144 Lake street, in this city.

Enlargement of Lymphatic Glands about the Bifurcation of the Trachea and Bronchial Tubes Obstructing Respiration. By C. CUSHING, M. D., Turner, Ill.

On December 28th, 1865, I was called to see an infant, four months of age, affected with a slight cough and difficulty of breathing, and what the old ladies call "snuffles." The child seemed fleshy and well nourished, and as its mother had no breast-milk, it was fed from a bottle. I left some medicine and the child improved somewhat, but in about ten days got worse again, distressing dyspnœa occurring in spasms, simulating asthma, being the most prominent symptoms.

Owing to the extreme youth of the child, and to its struggles and cries, the results of auscultation and percussion were unsatisfactory and threw no light on the case. The dyspnœa

was worse at irregular intervals, the child breathing most easily when asleep. Various modes of treatment were instituted by myself and by two other physicians, but nothing seemed of any avail except the warm bath, which gave temporary relief. I treated the case under the belief that it was a spasmodic nervous constriction of the trachea or bronchial tubes. One of the other physicians pronounced it dropsy of the heart; and the other said "wind on the stomach."

The child died about the middle of April, 1866, and I was called upon to make a post-mortem examination: it had lost some flesh since I had seen it in February, but it was not emaciated. All the internal organs were in a healthy condition except the lungs and the contiguous lymphatic glands.

There was extensive tuberculous deposit throughout both lungs, some of the tubercles having already commenced to soften. The tubercles were from the size of a millet seed to that of small peas.

The most interesting pathological conditions, however, were in the enormously enlarged lymphatic glands, situated about the bifurcation of the trachea: there were quite a number of these, some of them an inch in diameter, apparently filled with tuberculous matter.

Now it seemed evident to me that the difficulty of breathing was caused, in a great measure, by the pressure of the enlarged glands upon the trachea and bronchial tubes lessening their calibre, and that the nervous symptoms were caused by the pressure of the enlarged glands upon the pneumogastric nerves, causing spasmodic nervous constriction, more or less, of the whole lung. The trachea, at its upper part, and the larynx were in a perfectly healthy condition.

The father and mother were healthy people, but two children had died out of the family with pulmonary tuberculosis.

Mortality of First Labors.—Dr. Duncan, in the Edinburgh *Medical Journal*, declares, on the authority of statistics, that the mortality of first labors, and of puerperal fever following first labors, is about twice the mortality attending all subsequent labors collectively; and that after the ninth labor, the mortality increases with the number.

PROCEEDINGS OF MEDICAL SOCIETIES.

CHICAGO MEDICAL SOCIETY.

SYPHILITIC CARIES OF ULNA.

Dr. Amerman exhibited the lower third of the ulna, which he had removed from a young man at the County Hospital. The patient had contracted syphilis six years ago, the symptoms of which were so far relieved by his medical attendants, that he enjoyed perfect health for a long time, with no indication of the disease, except slight ulcerations of the throat. During the war he was in active service, which much impaired his health. Some months ago, an abscess formed at the lower part of the left arm, which opened spontaneously. On entering the hospital six weeks since, there was considerable enlargement of the arm, with fistulous openings and sinuses leading to the ulna. Resection of the lower third of the ulna was performed yesterday. After removal, the bone was found necrosed through its whole thickness, presenting all the usual characteristics of that affection.

SPONTANEOUS DISCHARGE OF A LARGE PORTION OF THE TIBIA.

Dr. Amerman also exhibited a piece of bone six inches in length, from the tibia of a young boy, who had suffered from typhoid fever. During convalescence, periostitis occurred, which caused the separation of a large piece of bone. Although the case was observed from time to time for a year and a half, no surgical operation would be permitted by the parents of the patient. At the end of this time the piece of bone, which had protruded from the limb, for some months, actually came away spontaneously.

SYPHILITIC SYNOVITIS.

Dr. C. G. Smith described a case of synovitis of the knee joint, as the apparent symptom of syphilis, with rupia and ulceration of the throat. There was no known direct cause of the synovitis. The use of mercurials and iodide of potash apparently relieved the affection of the joint, as also the eruption and ulceration of the throat.

Dr. Seibert had observed several cases, which induced him to believe that an abuse of mercury in syphilis tended to produce destruction of the cancellated portion of bones, rather than of the shaft.

DISEASE OF THE HEART AND KIDNEYS.

Dr. Ross exhibited the heart and kidneys removed from a patient, who had recently been at the County Hospital on three different occasions for disease of the heart.

The patient, aged 22 years, colored, had suffered two years before from acute rheumatism. After recovery, he had experienced more or less dyspnœa and palpitation.

During the first two attacks, which brought him to the hospital, he suffered from ascites and general anasarca, with labored respiration. There was a very distinct blowing sound with the systole of the heart, particularly marked at the apex. There was also a slight murmur with the second sound of the heart, heard more plainly over the base. In both of these attacks, the symptoms were relieved by the use of diuretics and an occasional hydrogogue cathartic.

Four days previous to his death, he again returned to the hospital with much aggravated symptoms. At the autopsy three gallons of serous fluid were removed from the abdomen.

The lungs were normal. The heart here presented weighed ℥xxi. There was marked thickening of the mitral valves, one of which was drawn toward the walls of the heart, by an abnormal attachment, producing an insufficiency. The semi-lunar valves of the aorta were quite normal, with the exception of a minute opening through the base of one of them.

The kidneys were enlarged and congested. On the surface of one of them, a peculiar deep, irregular cicatrix, about 1½ inches long and an inch wide.

CIRRHOSIS WITH TUBERCULOUS PERITONITIS.

Dr. Ross also exhibited the liver and a part of the mesentery of a patient who had been under his care at the hospital. The symptoms during the illness were tenderness over the region of the liver, ascites, and for a time anasarca of the lower limbs. During the close of the illness there was paralysis of the legs.

At the autopsy, the liver was found in a condition of cirrhosis, small, and weighing only 2½ lbs., it being easily broken down.

The upper portion of the lungs were studded with miliary tubercles, which had produced a small cavity at the apex of the lung. During the sickness there had been no cough or difficulty of breathing.

The whole peritoneum was found roughened by the presence of innumerable whitish elevations, containing minute deposits of tuberculous matter. The appearance, as presented by the portion of mesentery exhibited to the Society, was very remarkable.

SINGULAR CASE OF PYELITIS, RESULTING FROM PERITONITIS.

Dr. Ross exhibited two most interesting specimens of pyelitis, the result of the products of inflammation of the peritoneum. At the autopsy, there was found within the abdomen a considerable quantity of dark fluid, containing flakes of fibrin and pus. The peritoneum of the walls of the abdomen, as well as that covering the abdominal organs, was covered with a thick mass of organized lymph, in the meshes of which were deposits of pus.

This organized deposit bound the bowels, gall bladder, liver and other organs, as it were, into one solid mass.

One of the most interesting features of the case was the peculiar condition of the kidneys. Both ureters were so compressed by bands of lymph, as almost to render them impervious. The result was a very extensive accumulation of urine in the pelvis and upper portion of the ureter of each kidney, which had so enormously dilated these portions of the organs, as to present the appearance of a very large cystic tumor. This was readily seen in one of the specimens, since a ligature had been placed around the ureter. The other kidney had been divided to show the effects of the disease upon its structure. The pelvic portions of the kidneys, presented marked evidence of inflammation; the other portions were normal.

There was extensive tuberculous deposits in the mesenteric glands.

The patient had been laboring under chronic tuberculous peritonitis for five months.

It was scarcely conceivable that the patient could have lived so long with such a serious disease.

SINGULAR DEATH.

Dr. Bogue exhibited the heart of a young man, who had died suddenly, under peculiar circumstances. A police officer had just arrested him on a charge of theft. The young man, calling upon Almighty God to strike him dead if he was not innocent, denied his guilt, *and died upon the spot.* This strange incident was the subject of discourse in several pulpits, and was specially noticed in the public journals.

An examination revealed a hypertrophy of the left ventricle, with thickening of the aortic valves, and contraction of the space between them. The ascending aorta was considerably dilated. The other valves were in a normal condition.

CYSTIC TUMOR OF THE OVARY.

Dr. Bogue also exhibited a uterus and appendages removed from a patient, who had died of cholera. The vagina presented traces of extensive ulceration, with dark patches, resembling gangrene. Dark fœtid fluid was found in the vagina, the cavity of the uterus, and even in the fallopian tubes.

The fallopian tubes were surrounded by thick extensive bands, evidently the products of former inflammation, which bound them to the uterus. The whole of the left, and nearly all the right ovary, were normal in size and general appearance. Attached to the right ovary and involving but a small portion of its tissue, was a multiple cystic tumor, a couple of inches in diameter. The previous history of the patient was unknown.

Dr. Bogue also exhibited a uterus with its appendages, which he removed from a woman, æt. 35, who had borne children, and who died from some obscure causes with exposure to cold.

The condition of the ovaries was of particular interest, since the surface of both of them presented a large number of small cystic tumors. Attached to the right broad ligament, was a very remarkable pedunculated tumor, spherical in form, and

about a sixth of an inch in diameter. The peduncle was an inch long and not larger than a coarse horse hair.

There were also several corpora lutea, well marked, and a clot of blood in a cavity very recently occupied by an ovum.

SANITARY REPORTS.

Dr. Davis read an interesting report on the sanitary condition of the city, giving also his personal experience in the treatment of cholera.

From the 1st of August to the 24th of October, he had been called to 205 cases, with symptoms of cholera. Of twenty-six patients, found in collapse, only two recovered.

One of these, a boy, passed through a convalescence of nearly a fortnight. During the recovery there was extensive sloughing of the lower half of both cornea, which, however, healed without visible cicatrix.

Of 77 cases seen in the stage of active vomiting and purging, 18 died and 59 recovered.

Of 102 cases with true choleraic (rice water) diarrhœa without vomiting, all recovered but one.

MORGAN COUNTY MEDICAL SOCIETY.

The Society met at the Court House, in Jacksonville, on Thursday, Nov. 8, 1866, at 11 o'clock A. M., Dr. R. E. McVey, the President, in the chair.

Dr. Warriner presented a specimen of castor oil, which had been deprived of the impurities of the commercial oil, but which had lost none of the valuable properties of this excellent remedy. He remarked that the commercial castor oil was often found adulterated with lard oil. He had succeeded in condensing, by chemicals, the lard oil, separating it from the castor oil.

Though his process was known only to himself, he offered to impart it to the Society if they deemed it necessary. The expressed opinion of the Society seemed to be that it was no breach of professional etiquette for him to keep his secret, and several members seemed to feel inclined to test the article.

Dr. Prince, having been called recently to Adams county as a witness in a suit for malpractice, described the injuries and made some general remarks suggested by the trial. The case was a rare dislocation—the forward dislocation of the tibia, slipping over the swell of the astragalus one inch forward of its natural position. The fibula was fractured, but the lower fragment clung to its natural attachments, and was not displaced. Several of the most eminent practitioners of the State, and of the West, were summoned to appear in the case—among others, Dr. Andrews, of Chicago. Not one had ever been called upon to treat, or had known before of, a dislocation of the kind. But little even can be found concerning it in any of the text books on surgery.

Dr. Prince remarked that a mere knowledge of anatomy did not at once interpret the case. It was a question whether the general practitioner should be better informed than the text books, or whether he should decline rare and obscure cases.

Dr. Edgar remarked that, as all physicians were liable to be called upon for surgery, they must take special pains in educating themselves for it; they would be liable for prosecution. More prosecutions arise from fractures and dislocations than from any other source in the practice of medicine. Educate yourselves specially to attend to fractures and dislocations. Never attend a case of fracture or dislocation unless you have an intelligent witness with you. He thought medical schools paid too little attention to the education of their students in these important particulars.

Dr. Prince thought that students should be taught to state "that in dislocations a cure cannot be guaranteed." He quoted Dr. Andrews, of Chicago, "who thought that medical men should not be held by the law responsible for bad practice, as they were not allowed by the law of the State to familiarize themselves with anatomy in the proper way."

Dr. Askew thought that prosecutions more often arose from the disagreement of doctors than from any other source. If the mantle of charity should be thrown over the little difficulties of practice, there would be much less trouble in the courts about doctors. Instead of trying to rise on their own merits, phy-

sicians too often attempt to build themselves a reputation on the failures or demerits of their neighbors. The State should be more rigid in its requirements of qualification, and should afford ample opportunity for the study of anatomy.

At 12½ o'clock adjourned to 2 o'clock P. M.

The first business in the afternoon was the reading of two quarterly reports of the Treasurer of the Society, which were accepted.

Dr. Prince not being prepared to give his promised essay, Dr. R. E. McVey, of Waverly, read an essay on "Phthisis and its relations with scrofula."

Dr. Prince asked the question, whether the science of medicine had progressed to that point that children, whose parents for generations had died of consumption, could be carried safely through to old age.

Dr. McVey thought he had, by the early use of cod liver oil, cured several cases of incipient phthisis.

Dr. Edgar thought that diseases of the liver were often mistaken for tuberculosis, and that many cases were possibly of this kind.

Dr. Henry Jones remarked that he had generally failed in his efforts to arrest the progress of this terrible disease, and considered it a very undesirable inheritance.

Dr. McVey was requested by the Society to furnish his interesting paper to some medical journal for publication.

The committee on "Fees" desired longer time in the preparation of their report, and Dr. Prince was added to it.

Society adjourned to meet at 11 o'clock A. M., on the second Thursday in December. C. T. WILBUR, M.D., *Secretary.*

Hog Cholera in Ohio.—It is a well known fact that the hog cholera is prevailing to a considerable extent throughout the country adjacent to the city. In view of this fact, and also that the price of pork is suffering a considerable decline from anticipated prices, we presume the temptation to avoid loss is too great for some men to withstand. We are informed by authority of undoubted reliability, that it is the practice of many pork owners to kill the hogs when first attacked by the disease, and send them for sale in our daily market.—*Cin. Gaz.*

SELECTED ARTICLES.

Vivisection.—The practice of vivisection, of conducting physiological experiments on living animals, of laying bare the organs within the body and demonstrating to the eye the vital processes and changes which otherwise must be left very much to conjecture and theory, is one which, considered purely in itself, naturally excites the strongest repugnance in every mind which lays the slightest claims to humanity. The sight of the suffering thus inflicted on the lower animals cannot but cause a shudder, and it requires a conscientious purpose on the part of the operator and an intelligent conviction on the part of the spectator that an investigation is being made the object of which is the physical welfare of a higher race, to justify it or to make it even tolerable. Doubtless there have been in times past, too much reckless experimentation of this kind, too frequent repetition of the same experiment, too great readiness for mere purposes of display to exhibit what has already been sufficiently demonstrated, and too little consideration for the sufferings thus unnecessarily produced. As we have said, it requires a full appreciation of the importance of the object sought for to make such investigations tolerable. It is not, therefore, a difficult thing to so describe them, particularly to persons not professionally interested, as to make them to their minds the very consummation of everything barbarous and cruel. This view may, nevertheless, be as unwise and unjust as the criminations of those who stigmatize the operations of the noble science of surgery as nothing better than butchery.

Influenced by such feelings, it is not surprising that movements should have been made at different times on the part of benevolent persons to check an undue tendency to the repetition of such experiments, or even to prevent them altogether by legal enactment. In this country, until quite recently, very little of this method of pursuing physiological study has been done. Professor Dalton, of the College of Physicians and Surgeons in New York, has probably made more researches in this way than any other American physiologist. The value of the results which he has obtained has been universally acknowledged by the medical profession; and as it is every day becoming more and more evident that the true practice of medicine must be based on the most accurate physiological knowledge, the value of the information gained in this way is becoming more and more demonstrated. Prof. Dalton's vivisections, however, have attracted the attention of the New York Society for the Prevention of Cruelty to Animals, and its President,

Mr. Henry Bergh, has felt it his duty to address a letter of inquiry on the subject to Dr. Delafield, President of the College of Physicians and Surgeons, suggesting that if vivisections could not be altogether dispensed with, they might at least be deprived of their suffering by the use of anæsthetics. Dr. Delafield referred this letter to Dr. Dalton, who replied that he was in the habit of using anæsthetics in all instances which it was possible without defeating the object of the experiment. This statement was not specific enough to satisfy Mr. Bergh, who wrote another letter, asking information concerning the exceptional cases; which Dr. Dalton explained by stating that they were cases where the object was "to ascertain the presence or absence of sensibility in particular parts."

It seems that these statements were still unsatisfactory, and Mr. Bergh accordingly addressed a long letter to Dr. Delafield, setting forth in the strongest terms his abhorrence of all such practices, giving a detailed description of some of Magendie's experiments, presenting the opinions of prominent members of the medical profession in Europe against them, and concluding with a protest "in the name of Heaven, public morality and of this Society against these fearful cruelties, inflicted on dumb, unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." The letter is published in full in the N. Y. *Evening Post* of the 7th inst.

Making all due allowance for the humane feeling which has actuated Mr. Bergh, we feel that in this matter he has gone too far. It is impossible for an unprofessional mind fully to appreciate the considerations which justify to a physiologist what considered by itself merely is but a painful spectacle of suffering. We feel that he should have trusted to the humanity of Dr. Dalton to pursue his researches in the true spirit of scientific inquiry, the sole object of which is the ultimate diminution of human suffering. Least of all was he justified, in our opinion, in printing his letter in the daily press, to excite the universal horror and indignation of sensitive minds. As well might he have opened the doors of a dissecting room to the public for the purpose of producing a prejudice against the indispensable study of practical anatomy. Dr. Dalton replied to Mr. Bergh's letter as follows, and we leave his justification in his own hands; we find it in the New York *Evening Post* of the 8th inst.

COLLEGE OF PHYSICIANS AND SURGEONS,
New York, November 8, 1866.

Edward Delafield, M.D., President of the College of Physicians and Surgeons:

DEAR SIR,—I have received your letter of this date, enclosing a third communication from Mr. Henry Bergh, President of the Society for the Prevention of Cruelty to Animals, dated November 1, in which he enters at length into

the question of the propriety of vivisections, and in which he protests, "in the name of Heaven, public morality, and of this Society, against these fearful cruelties, inflicted on dumb unresisting creatures, confided to the merciful protection of mankind, without the employment of anæsthetics." His letter, I see, is also published in the New York *Evening Post* of yesterday.

Without replying to the extravagant epithets contained in Mr. Bergh's letter, which are of no consequence in themselves, and which will have no weight with those who desire to be correctly informed as to the facts in the case, I desire to mention to you a few considerations which show that the practice of experimenting upon animals for physiological and medical purposes, which is held up to so much animadversion, is an eminently proper one; and so far from deserving reprobation, is entitled to respect as a valuable and legitimate means of benefiting mankind.

First of all, its sole and ultimate object is the relief of human suffering and the cure of human diseases. It is the best and most valuable means by which our knowledge of physiology is increased; and upon physiology the cultivation and improvement of the whole medical art depend. All intimations that it has any other motive than this—such as display wantonness, or the indulgence of a reckless cruelty, are false, and do not represent its true character. The knowledge which is obtained by it enables us to understand the natural functions, without which the study of medicine in all its branches would be retarded, and indirectly but certainly the success of medical practice diminished. In point of fact, nothwithstanding all unfounded assertions to the contrary, the greatest discoveries in physiology have, in past times, being directly due to its employment; and while we owe to it a large proportion of the useful knowledge which we now possess, it would be the greatest misfortune for medicine and the welfare of mankind, if it were abandoned or neglected in the future.

Secondly, it is not a cruel practice, but may be and is, in the great majority of instances, conducted in a perfectly humane and unobjectionable manner. It can never be the objecte of th physiologist to inflict unnecessary suffering; but on the contrary, it is desirable both for the sake of humanity and for the attainment of his object to avoid doing so. This is greatly facilitated by the use of anæsthetics. Since the anæsthetic properties of ether and chloroform have been known to us, their employment has been fully as useful to the physiologist as to the surgeon, and they enable us to do the requisite preliminary operations without the animal experiencing any sense of suffering, and even without his conciousness.

As you are aware, it has been my constant practice to employ ether for this purpose, in the College of Physicians and Surgeons, whenever the operation to be performed was calculated to inflict pain upon the animal. This can always be done, except in a very small class of cases, where the aim of the experiment being to ascertain the existence of sensibility in a particular part, the unconsciousness produced by ether would defeat the object of the operation.

This is especially true in certain experiments of Magendie, performed in 1822, on the roots of the spinal nerves, to which I referred in a former letter, and by which the sent of sensibility in these parts was ascertained. But these experiments are so rare that I have not only never had occasion to do them myself, but do not recollect ever to have seen them performed. Yet I know that they have been done in former times, and have been productive of the most valuable and lasting results; and when requisite for other objects similar experiments might again become necessary and proper, and even here the amount of suffering inflicted is very much less than it is often represented to be. It can only be necessary to obtain an indication of sensibility, and the object of the experiment is accomplished. The practice of performing surgical operations on living animals by students or practitioners as a means of acquiring dexterity, so far as I am aware, is unknown in this country.

I allude to these considerations because I think they are important to the cause of medical education, in which we, as well as the whole community, are interested. In the College of Physicians and Surgeons over which you preside, it has always

been believed that the fullest instruction in physiology, as well as in the other elementary branches, is essential to the due preparation of intelligent and successful physicians. The more complete and efficient this instruction is made, the more competent will be the practitioners who every year are sent out to join the ranks of the medical profession. This instruction is made as complete as possible by ocular demonstrations of many important facts, but this is always done, as I believe, in a reasonable and proper way. It is not the case that "revolting barbarities are repeated at lectures for the mere gratification of juvenile curiosity." It is unnecessary to say to those who are familiar with these lectures that no such barbarities are to be seen there; but it may be desirable for the information of those who are unacquainted with the subject, and might otherwise acquire an unfounded prejudice against it. I cannot, therefore, pass over without reply the communication of Mr. Bergh, which is calculated to place in so false a light one of our most valuable means of improvement in medicine.

Yours, very respectfully, J. C. DALTON, M.D., *Prof. of Physiology.*

—*Boston Medical and Surgical Journal*, Nov. 29th, 1866.

Successful Removal of a Large Bronchocele. By WM. WARREN GREENE, M.D., Professor of Surgery in Berkshire Medical College and in the Medical School of Maine.

I have been repeatedly asked by patients, as has every surgeon of much experience, to excise bronchoceles, when small, from apprehension of increased growth, and when large, to relieve deformity or discomfort from weight and pressure, but have never before seen a case in which I should have felt a shadow of justification in using the knife; still I knew such cases did occur, and have often, with myself, discussed the surgical *possibilities* under such circumstances. Upon a careful examination of the books, I inferred that in most instances the knife had been used freely around the tumor, and that in several instances the attempt had been made to remove a *part* only of the morbid growth; and one surgical writer of distinction alludes to a case of this as being remarkable, on account of the uncontrollable hemorrhage, (the patient dying on the table,) when a removal of only a *small portion* of the mass was attempted. Now, each lobe of the thyroid gland is supplied by two arteries usually, sometimes three; no matter how large the goitre, these arteries, however much enlarged, are found entering *the base* of the tumor into which they pass, and their branches ramify through its substance, comparatively few arterial vessels being found upon the surface, which is covered with a network of veins, oftentimes of large size, having extremely thin, delicate walls, and which inosculate freely with those in the substance of the gland. It had occurred to me that in the event of wounding these superficial veins, it might be

useless to litigate them, they are so tender, and operations might have failed which would have otherwise succeeded, from the attempt to control the hemorrhage completely during the dissection, in which the knife was perhaps too freely used; and that it was worse than folly to remove a part of a lobe, as almost invariably we should thus open scores of vessels whose bleeding would be uncontrollable. I believed that if they could be removed at all, it must be accomplished by keeping clear of the tumor as far as possible, and rapidly pushing down to the pedicle, which consists mainly of vessels and areolar tissue.

On the 19th of August last, Mrs. Klopf, aged forty-five, a highly respectable and intelligent German lady, residing in Albany, N. Y., consulting me for an enlargement of the right lobe of the thyroid gland; there was a slight enlargement of the left side. She first noticed the tumor twenty-six years ago, but it had never given her any trouble until within a year and a half, during which time it had rapidly increased to its present size. Its dimensions were now such that the common carotid was crowded behind the posterior edge of the sterno-mastoid muscle, where its pulsations were distinctly felt, and the trachea was pressed firmly to the left side. So great was the pressure upon these organs and the œsophagus, that any attempt to swallow or talk gave her terrible spasms of dyspnœa. She was unable to lie down, and required constant watching during her broken sleep, lest she should die of suffocation. See suffered very much from headache and giddiness, and could not stoop without losing her consciousness. All these symptoms had been for two months rapidly increasing in intensity, and for two weeks almost a daily aggravation had been noticeable. She had recently consulted the leading surgeons of Albany and some other cities in New York, all of whom told her that nothing could be done. At my request my colleagues, Professors Ford, Palmer and Storer, and Drs. Smith, Brewster and others, examined her; and all agreed that a few days at most would terminate her existence, while the thread was liable to snap at any hour. The patient was already aware of her imminent danger, and her only question was as to the *possibility* of relief. I told her in all probability the removal of the growth would be found impracticable; and that even if she survived the operation, which was not likely, the chances were a hundred to one that she would die of secondary affections; but still there was a bare possibility of success, and that while I would by no means advise an operation, yet if she, being fully aware of all the facts, insisted upon taking this desperate chance, I would undertake the removal of the tumor. I was

happy to have my own views as to the propriety of this advice endorsed by Dr. Storer. She immediately decided upon its being done, and at once. Accordingly, in the presence and with the assistance of Prof. H. R. Storer, Dr. F. K. Paddock, and several students, I made the operation in the following manner: the patient, being etherized, was placed in the ordinary position for ligation of the carotid, and a single straight incision was made over the tumor, extending from the inferior maxilla to the clavicle. The anterior external jugular vein, which ran close by the line of the incision, was not injured. The sterno-mastoid, which was spread over the mass like a thin riband, and the several fasciæ, were successively divided upon a grooved director, and the areolar tissue with the knife and fingers, the handle of the scalpel being employed much more freely than the blade. On raising upon the director the little thin layer of fascia immediately investing the tumor, several veins were wounded and bled profusely; this was controlled by the fingers of an assistant, and the delicate envelope carefully reflected from the gland; but although this was done with the utmost caution and gentleness, several other veins were ruptured. I now found that the entire growth was completely covered with a network of these vessels; and so thin and tender were their walls that the forceps tore, and the ligature cut their coats; and now, although the blade of the knife had not touched the surface of the tumor, so many of these veins were opened, that in spite of all the pressure that could be made, the hemorrhage was fearful. I now rapidly separated the areolar attachments, and in a few seconds was at the pedicle, which I found containing three large arteries whose pulsations were very distinct, and which were my guides for dividing the pedicle into three parts, which I also accomplished with the fingers. I immediately tied each third with a ligature composed of eighteen strands of saddler's silk, *saturated* with wax and *loosely twisted*. As I drew the last chord all hemorrhage instantly ceased. The pedicle was carefully divided close to the goitre, and it removed. During the dissection I found at one point the tumor quite firmly adherent to the sheath of the vessels; and while separating it, a gush of venous blood indicated the rupture of a large vessel. The finger of an assistant controlled it until the ablation of the bronchocele, when examination proved the internal jugular to be wounded. This was tied with a ligature of three strands of silk loosely twisted; no other vessels needed interference. The entire operation occupied twenty-two minutes.

After carefully sponging the wound and allowing the surface to glaze somewhat, the edges were united by interrupted sutures,

water-dressing applied, and she placed in bed. The extremities were cool, and pulse feeble but regular, and less than ninety per minute. She reacted nicely, and passed a more comfortable night than she had for weeks. The after-treatment consisted in perfect quiet, water dressings when agreeable, anodynes *pro re nata;* the exhibition of muriated tincture of iron, twenty drops every four hours, and as much rich broth, gruel, and milk as she would take at regular intervals. For several days there was considerable irritation of the œsophagus and trachea, but not enough to interfere seriously with deglutition or respiration. This passed away, and she recovered without a bad symptom. The last ligature came away on the twenty-sixth day; in another week the wound was entirely healed, and she is now in perfect health and restored to a happy family.

The weight of the tumor was one pound nine ounces avoirdupois.—*Med. Record*, Dec. 1.

EDITORIAL.

BOOK NOTICES.

Practical Therapeutics, considered chiefly with reference to articles of the Materia Medica. By EDWARD JOHN WARING, F. R. C. S., Surgeon in Her Majesty's Indian Army. Philadelphia: Lindsay & Blakiston. 1866.

We have greatly enjoyed the examination of this volume. It is indeed one of the most practical works that has ever attracted our attention. Combining the merits of Wood, Beck, Stille, and the U. S. Dispensatory, it forms a volume which no young physician can afford to be without.

The different articles of the materia medica are considered in alphabetic order, and the volume is concluded by a hundred pages devoted to certain medical agents and classes of medicines which cannot be arranged in any mere list of drugs. A very full index of diseases with their appropriate remedies is appended to the book. The whole book, by the judicious use of small type, is compressed within eight hundred pages, forming the best example of what is intended by the phrase *multum in parvo*. We hope that every medical student will provide himself with a copy of this invaluable treatise before he receives his degree of *Doctor Medicinæ*.

A Handy Book of Ophthalmic Surgery for the use of Practitioners. By JOHN Z. LAURENCE F. R. C. S., M. B., Surgeon to the Ophthalmic Hospital, Southwark, etc., etc., and ROBERT C. MOON, House Surgeon to the Ophthalmic Hospital, Southwark. 190 pages. Philadelphia: Henry C. Lea.

For those about entering upon the study of ophthalmology, this little work of Mr. Laurence and Mr. Moon will prove a most valuble text book. Such a work, carefully studied, will furnish the student with a thorough knowledge of the terminology and also the fundamental principles of the science, which will place him at great advantage in receiving the benefits of clinical instruction.

It is to be regretted that a work, so excellent, should not have been somewhat larger. Several chapters could have been a little more extended without impairing the character of the work as a "handy book."

We most heartily commend this work to the student and the profession at large.

For sale by Keen & Co., 148 Lake st.

Glaucoma and its cure by Iridectomy. Translated by C. A. ROBERTSON, M. D., of Albany, N. Y. From the French of Testelin & Warlomont.

Glaucoma is undoubtedly a very rare disease in the Northwest. The oculist will scarcely meet with one case in every thousand patients with diseases of the eye he is called upon to examine. A monograph on this affection, therefore, will probably fail to excite interest in the profession. And yet we can assure our readers, that a full discussion of the subject involves so many principles of great value in the study of ophthalmology, that a good monograph on the subject, merits careful study by every physician.

For presenting this translation of such a monograph, Dr. Robertson is deserving of the thanks of the profession.

Orthopædics: A Systematic Treatise upon the Prevention and Correction of Deformities. By DAVID PRINCE, M.D.

The very favorable manner in which the medical press gen-

erally have received this monograph, is an evidence that its author is very far from failing in his effort to produce an instructive and valuable work.

Dr. Prince is well known as a careful student of his favorite branch of surgery, and as a practitioner, rich in experience.

All who are interested in the subject of orthopœdic surgery will need this work of Dr. Prince.

For sale by Keen & Co., 148 Lake st.

A Practical Treatise on Diseases of the Skin. By J. Moore Neligan, M. D., etc. Fifth American, from the second revised and enlarged Dublin Edition. By T. W, Belcher, M. D., Dublin. Philadelphia: Henry C. Lea. 1866.

This instructive little volume appears once more. Since the death of its distinguished author, the study of skin diseases has been considerably advanced, and the results of these investigations have been added by the present editor to the original work of Dr. Neligan. This, however, has not so far increased its bulk as to destroy its reputation as the most convenient manual of diseases of the skin that can be procured by the student.

For sale by W. B. Keen & Co., Chicago.

Cerebro-Spinal Meningitis: Being a Report made to the Illinois State Medical Society, June, 1866. By J. S. Jewell, M. D., Professor of Anatomy, Chicago Medical College, etc. etc. Chicago, 1866.

We have examined this treatise with the interest which its worth deserves. Every page gives evidence of thorough study and extensive research. As a well digested abstract of the previous literature of the disease this report has few rivals. The author's deductions and conclusions are marked by rare good sense and discrimination. Hoping that this may not be the Professor's last appearance before the medical public, we can cheerfully recommend his work to all who wish to study the interesting disease which forms its subject.

An Introduction to Practical Chemistry. By JOHN E. BOWMAN, F. C. S., late Professor of Practical Chemistry in King's College, London. Edited by CHARLES L. BLOXAM, F. C. S. Fourth American, from the Fifth Revised London Edition. Philadelphia: Henry C. Lea. 1866.

A new edition of this valuable little work.

For sale by W. B. Keen & Co., Chicago.

The Martyrs and Heroes of Illinois in the Great Rebellion. Biographical Sketches. Edited by JAMES BARNET. Illustrated with Portraits. 2d Edition. Chicago: 1867.

The popularity of this interesting volume is beyond question. It forms an enduring record of the lives of nearly one hundred of our heroes who counted nothing dear in comparison with the love they bore their country. From the great President to the humble private soldier all ranks are represented. Sketches of Surgeons Coatsworth and Lynn of Chicago are also here given, and no one can lay down this memorial without a feeling of tender regret mingling with that pride which in the hearts of his countrymen is the soldier's highest recompense.

For sale by James Barnet, 191 Lake street, Chicago.

TICKNOR & FIELDS offer new attractions to the readers of the *Atlantic Monthly.* Prof. O. W. Holmes will furnish another tale for the coming volume, and the best talent of New England will, as heretofore, continue to uphold the reputation of the magazine. The able historical articles which form so prominent a feature of the publication, are alone worth its subscription price. The other serials issued by this house continue to merit the good name which we have always claimed for them.

SUBSCRIBERS who desire to have their post-office address changed, must send information to our office at least one month previously. All communications for insertion in the Journal, should be forwarded before the 15th of the month previous to their desired appearance. Letters to which answers are desired must always contain a postage stamp.

CLINICAL INSTRUCTION IN CHICAGO.

The increased advantages for practical instruction at the bedside, which this city now affords, cannot fail to mark Chicago as an important point in our country for the character of its medical institutions.

The Mercy and Marine Hospitals afforded, for many years, almost the only facilities in the city for clinical observation. To these institutions many hundred of practitioners in the land will look with deep satisfaction, in remembrance of the knowledge of disease they gained under the guidance of instructors whose names are familiar in every village of the Northwest.

These hospitals still afford material of the greatest value for the student. But the opening of the County Hospital at the close of the past year, was the commencement of an important era in the history of medical education in Chicago. This hospital now contains nearly one hundred patients, presenting examples of almost every form of disease. Without doubt the number of patients will increase each year in proportion to the rapid growth of the city.

The recent very great improvements in the accommodations for the medical class, have added much, not only to the comfort of students, but to their means of observing operations, and of inspecting the different cases of diseases, and the *post mortem* specimens.

The number of autopsies is quite large, and presents a very important feature in the courses of instruction at the hospital.

The following synopsis of the annual report of the Medical Board will interest our readers:

Since the organization of the hospital, in January last, the number of patients under treatment has been 807. Of these, the number admitted into the medical wards was 505, into the surgical, 258; into the Eye and Ear Department, 44. From the medical wards the number discharged, cured, was 326; number relieved, 50; number of deaths, 87; remaining, 42. From the surgical wards the number discharged after cure was 208; relieved, 10; deaths, 10; remaining, 30; total, 257.

From the Eye and Ear Department there have been discharged, after cure, 27; relieved, 5; transferred to medical

department, 1; absconded, 3; remaining, 8; total, 44. Number of births in the lying-in rooms 34.

During the month of October a dispensary for the relief of the outside poor was opened in the basement of the hospital, and the number thus supplied was 85. The dispensary is open every day during the week, Sundays excepted, from 1 to 2 o'clock in the afternoon, for medical and surgical patients. Patients with disease of the eye and ear are admitted at 11 o'clock in the morning.

The high rate of mortality among the inmates is accounted for by a combination of causes, which in public institutions like this, from which the homeless victims of incurable diseases cannot be excluded, always operate to swell the lists of deaths beyond the figures which obtain in those hospitals where only acute diseases are treated. Of the deaths which occurred in the medical wards, 45 were of chronic incurable diseases. Eight inmates have died of cholera, and about twenty persons have been admitted in a moribund state whose death occurred in a few hours after being received.

The hospital is well provided with ample means for service, and is throughout in most excellent condition.

The college clinics also afford facilities for instruction by no means insignificant, and are fully attended by the different classes in the city.

In addition to these institutions may be mentioned the Chicago Charitable Eye and Ear Infirmary, which is open for all students, who wish to gain a knowledge of the diagnosis and treatment of ophthalmic and aural diseases.

The facilities for instruction thus offered in these departments of medicine and surgery, are probably inferior to those of no city in the Northwest. More than five hundred patients, with diseases of the eye and ear, applied to the Infirmary for treatment during the past year.

RUSH MEDICAL COLLEGE.

The commencement exercises of the *twenty-fourth* session of this College took place on the evening of October 3d.

The prospects of the school were never more flattering. A large class had already assembled, with every assurance that its members would be much augmented in a few days.

The whole appearance of the class, the expressions of earnestness, and evident manifestation of a desire on the part of its members to seek the knowledge which would best fit them for their duties as true physicians, could not but impress their teachers with the conviction that their labors would not be in vain.

No one could dream of the deep affliction which was so soon to fall upon those who were then assembled. In less than one week, the hand of death had taken away its most impressive lecturer and teacher, whose great intellect, deep wisdom, and almost unbounded professional experience, made him a tower of strength in the Institution he had founded so many years before.

In consequence of the death of Prof. Brainard, the exercises of the College were suspended for a few days.

At the present time, as we are informed by the Secretary of the Faculty, there is a larger class now present than ever before at a corresponding period of the course.

Friends of the school may be interested to know that the lectures on surgery are delivered by Prof. Powell.

In addition to the ordinary course of instruction as presented in the annual announcement, and the clinics described on another page, may be mentioned the "Quiz" class of Prof. Rae, and that of Drs. Powell, Lyman and Lackey.

CITY MORTALITY.

The following is the statement of the Health Officer of the city mortality for the month of November:

Died in South Division,	137
Died in West Division,	172
Died in North Division,	73
Total,	382
Total in November, 1865,	299
Total in October, 1866,	1170

Ages.—Under five years, 173; from five to ten, 20; from

ten to twenty, 25; from twenty to thirty, 39; from thirty to forty, 36; from forty to fifty, 40; from fifty to sixty, 15; from sixty to seventy, 12; from seventy to eighty, 11; from eighty to ninety, 2; from ninety to one hundred, 1; unknown, 8. Total, 382.

Nativities.—Chicago, 162; United States, 72; Canada, 7; Denmark, 1; England, 5; France, 1; Germany, 51; Ireland, 39; Italy, 2; Norway, 15; Sweden, 1; Switzerland, 1; Scotland, 6; Newfoundland, 1; unknown, 18. Total, 382.

Causes of Death.—Accident, 16; Asthma, 3; Apoplexy, 1; Burned, 3; Cancer, 8; Childbirth, 4; Cholera, 12; Cholera Morbus, 4; Cholera Infantum, 1; Congestion of Brain, 6; Congestion of Lungs, 4; Consumption, 39; Convulsions, 47; Croup, 11; Cold, 1; Disease of Brain, 1; Disease of Heart, 2; Disease of Liver, 2; Disease of Kidney, 1; Disease of Hip, 1; Disease of Lungs, 2; Disease of Throat, 1; Delirium Tremens, 8; Decline, 3; Dropsy, 9; Diarrhœa, 5; Diphtheria, 12; Dysentery, 2; Drowned, 2; Erysipelas, 3; Intermittent Fever, 8; Scarlet Fever, 6; Spotted Fever, 1; Typhoid Fever, 18; Fever not stated, 4; Gun-shot wound, 3; Hemorrhage, 3; Hydrocephalus, 3; Inflammation of Brain, 9; Inflammation of Bowels, 4; Inflammation of Lungs, 13; Inflammation of Liver, 1; Intemperance, 4; Measles, 1; Marasmus, 1; Old Age, 12; Phthisis Pulmonalis, 2; Paralysis, 3; Still-born, 8; Summer Complaint, 5; Scald, 1; Teething, 1; Tuberculosis, 2; Diabetes, 1; Ulcer, 1; Whooping Cough, 17; Wound, 1; unknown, 36. Total, 382.

As we close the twenty-third volume of the Journal, our thanks are due to the numerous friends who have assisted us by their subscriptions and by their good wishes. A few names on our list of subscribers are still disfigured by the black cross of unpaid debt, but the majority have testified their appreciation of our efforts by a prompt settlement of dues. As no physician in the Northwest can afford to be without the Journal, and as we do not propose to retain the names of delinquents upon our subscription lists, we hope that these few tardy debtors will no longer copy the example of that class of their patients who do not hesitate to receive, without rendering compensation or thanks for, professional services.

WANTED, the July and August Nos. of the Journal, for 1865.

MARRIED.—In this city, Dec. 4th, at the residence of J. W. Sykes, Esq., by Prof. S. C. Bartlett, D. D., BENJAMIN DURHAM, M. D., to Miss LUCY M. CLARK, both of Chicago.